With
Mess^rs. A. & C. Harston's
compliments

TOOTING BEC ASYLUM.

Under
METROPOLITAN
ASYLUMS BOARD.

METROPOLITAN ASYLUMS BOARD.

TOOTING BEC ASYLUM.

DESCRIPTIVE NOTES

WRITTEN FOR THE OCCASION OF THE INSPECTION BY THE BOARD ON THE 13th JUNE, 1903,

BY

Messrs. A. & C. HARSTON, F.S.I., F.R.I.B.A.,
Architects.

FE51
LONDON : Hospitals (Tooting Bec)
MENTAL HOSPITALS : Great Britain : 19-20 cen

THE ADMINISTRATIVE BLOCK.

322197

TOOTING BEC ASYLUM.

Descriptive Notes.

RETROSPECTIVE.

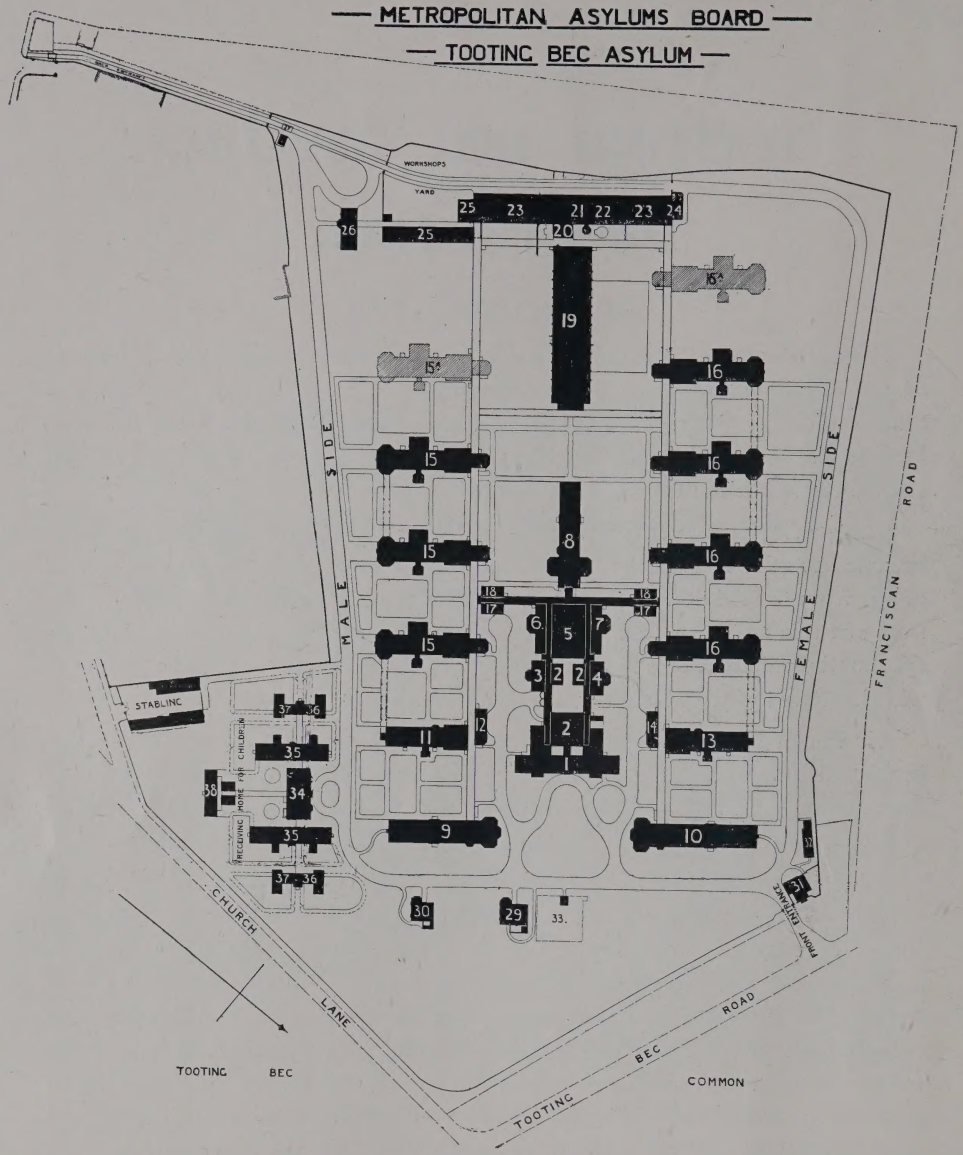
The Metropolitan Asylum District was constituted under the provisions of the Metropolitan Poor Law Amendment Act, 1867, and among many other duties the Managers have the care and maintenance of the Imbecile Poor of the Metropolis, a class which, prior to the enactment referred to, had been sheltered in the wards of the Metropolitan Workhouses.

Large Asylums were erected at Leavesden and Caterham, and as these became occupied it was found desirable to separate the Children under 16 years of age from the Adult Imbeciles. It was felt that with greater attention the lives of these unfortunate children might be made happier and that some by systematic training and occupation might acquire habits of order and cleanliness with improved physical and mental condition.

It was at this point that the writer's connection with the work (which has continued uninterruptedly for 30 years) commenced, first at the temporary Asylums at Hampstead and Clapton, then in designing and erecting the school at Darenth in Kent, followed by the Asylum and the Pavilions for Helpless Adult Imbeciles on the same estate.

Now a fresh departure has been taken and the Aged, Helpless, and Infirm Imbeciles and the Epileptic Infirm are to be separated from those who are comparatively sound in body and maintained in the Metropolis in the new Asylum Infirmary, which we are about to describe, where they will receive that exceptional individual care and attention which their affliction calls for and be more accessible to friends and relations. In addition, the new buildings are to serve as Receiving and Classification Houses for all patients newly admitted prior to transfer to the Boards' Country Asylums and Schools. On a portion of the site a Receiving Home is being erected specially for Imbecile Children.

In formulating their requirements of the new buildings, the Managers had the assistance of Dr. G. Stanley Elliott, late Medical Superintendent of Caterham Asylum.



REFERENCE.

1. Offices and Staff Quarters.
2. Stores.
3. Dispensary.
4. Needle Room.
5. Kitchen.
6. Attendants' Mess Rooms.
7. Nurses' Mess Rooms.
8. Domestics' Block.
9. Attendants' Block.
10. Nurses' Block.
11. Males' Probation Block.
12. Males' Receiving Rooms.
13. Females' Probation Block.
14. Females' Receiving Rooms.
15. Male Patients' Blocks.
15A. Male Patients' Future Extension.
16. Female Patients' Blocks.
16A. Female Patients' Future Extension.
17. Visitors' Rooms.
18. Attendants' Rooms.
19. Laundry.
20. Gas House.
21. Boiler House.
22. Dynamo House.
23. Coals.
24. Disinfector House.
25. Workshops.
26. Mortuary.
27. Weighbridge.
28. Meter House.
29. Steward's House.
30. Foreman of Works' House.
31. Porter's Lodge.
32. Greenhouse.
33. Rain Water Reservoir.

RECEIVING HOME FOR CHILDREN.

34. Staff.
35. Imbecile Blocks.
36. Ringworm.
37. Ophthalmia.
38. Isolation Block.

The Site and General Disposition of Buildings.

Porter's Lodge.

The Managers have had the matter of this new Asylum under consideration since 1892, and in 1894 purchased upwards of 22 acres of land known as the Tooting Lodge Estate, adjoining Tooting Bec Common, at a cost of £27,000. The house, a dilapidated mansion has been pulled down, but care has been taken to preserve as many of the trees as possible.

The soil is gravel and loam overlying London clay, and there is a rise in the surface from North to South of about 16 feet.

The accompanying small Block Plan shows the general arrangement of the several buildings. The Asylum forms the principal feature with its central group of Administrative Buildings, male wards to the left, and female wards to the right. The entrance is from Tooting Bec Common, but there is a second entrance from Church Lane, for bringing in coal and heavy stores and removing refuse, for which purpose a granite tram-road has been laid through the workshop yard to the several Coal Stores, and a weighbridge fixed.

The detached houses in front are for the Steward, Foreman of Works, and Gate Porter.

The group of buildings to the left forms the Receiving Home for Children, and further to the left is the Stabling with a separate entrance from Church Lane.

The Asylum.

General View of West Side.

Patients' Accommodation.

The Asylum has been designed to afford accommodation for 996 patients, but, for the present, two Blocks have been omitted, reducing the number to 804, as shown below. The Certificate of the Local Government Board is for 772.

Male Infirmary Wards, including 18 single rooms	288
Female Infirmary Wards, including 24 single rooms	384
Male Probation Block, including 6 single rooms	66
Female Probation Block, including 6 single rooms	66
	804

Staff Accommodation.

Staff accommodation has been provided for 70 men and 105 women.

Infirmary Blocks.

The Infirmary Blocks are three-storey buildings, and on each floor there is a Dormitory for 24 beds, a smaller Dormitory for six beds, and two single rooms. The Dormitories provide for each patient a lineal wall space of six feet, a floor area of 72 feet, and a cubic space of 936 feet. At the farther end of and separated from the main Dormitory by a dwarf partition is a large Day Room.

Each floor is self-contained and separately approached from the staircase. It forms in fact a flat for 32 patients. At the entrance end are two single rooms, Linen and Day Clothing Rooms, Broom recess, Bathroom, and Ward Kitchen, with inspection window overlooking the large Ward. The Sanitary Annexe is near the centre of the East side of the Ward and connected by covered bridges with cross ventilation.

The Staircases are formed of concrete, with steps five feet wide, in short straight flights encircling a brick centre shaft which contains a hand-power lift for raising coals, &c. At the rear ends the Blocks are coupled on the first and second floors by means of bridges formed of concrete and steel which afford a ready means of escape in case of fire and in suitable weather serve as ambulatories for the use of patients.

On each floor of the Staircase is an enclosed recess for the dirty linen basket, opening direct to the external air.

Day Ward.

The floors throughout are of concrete and steel construction without voids of any kind, and the spaces below the ground floors have been solidly filled in. The Ward floors are finished with polished oak, with Terrazzo margins and curved skirtings. Other floors are finished with Terrazzo. The walls are plastered with Barrow Silenetic Cement and have curved internal angles.

Infirmary Ward.

The large Dormitories are warmed by Hendry & Pattison's central air-chambered stoves with descending flues, and the Day Rooms and small Dormitories by similar side stoves. In addition there are hot water radiating coils and radiators in the smaller rooms and offices.

The windows have double hung sashes and fan sashes with glazed hopper cheeks, and below each Ward window is a grating with a valve for the admission of fresh air at a point at which it will impinge upon the hot water coils. In the smaller rooms the air is admitted to the base of the radiators.

Administrative Block.

A Receiving Room adjoins each of these Blocks. Two of the Single Rooms in each Block have been padded by Pocock Bros.

Probation Blocks.

The Probation Blocks are somewhat similar to the Infirmary Blocks, but provide on each floor day and night accommodation for 20 patients only.

Probation Blocks.

Administrative Block.

The central group are Administrative Buildings, and the front portion contains the Offices and Quarters of the Chief Officers and the Committee Room. From the entrance two Side Corridors branch right and left to the Main Corridor and between these are situated the Stores and the Kitchen Departments. The central feature of this group is a glass-covered Court which gives access to the whole of the Stores and also to the Kitchen Court.

Stores.

The Stores consist of a Basement and Ground Floor with a Gallery subdivided and fitted in a suitable manner for the several classes of goods. The uncooked Meat, Fish, Milk, and Vegetable Rooms are kept separate and adjoin the Kitchen Court.

Kitchen.

Kitchen.

The Kitchen, which is 43 feet by 32 feet, immediately adjoins the Main Corridor, and opens into a Scullery, 43 feet by 22 feet, with Vegetable-washing Room, Cooks' Store, Larder, &c. Both Kitchen and Scullery are lit by windows on three sides and by lantern lights, the floors are paved with Silex stone, and the walls lined with Opalite. They are fitted with steam-jacketted boiling pans in central groups, beef tea and milk pans, steam ovens, gas ovens, hot plates and grillers, and a bakers' oven for pastry. The Contract for these fittings was undertaken by Messrs. Moorwood, Sons & Co., Ltd., and Messrs. H. Smith & Son built the oven.

Mess Rooms.

On the Side Corridors adjoining the Kitchen are the Messrooms for Nurses and Attendants, Kitchen Staff, and Stokers, with Sculleries and Lavatories.

Dispensary and Needle Room.

On the same Corridors are the Dispensary with Consulting Room and Drug Store, with fittings by Messrs. Howlett & Son, and the Needle Room with Matron's Office and Store.

Nurses' and Attendants' Blocks.

The two front Blocks are for Nurses and Attendants, and provide a separate Bedroom for each member of that class, together with Bathrooms, Lavatories, Cleaning Rooms, Linen Rooms, Boxrooms, &c. There is also on the ground floor of each Block a spacious Sitting Room. The Assistant Matron and Head Night Nurse have rooms in the Nurses' Block, and the Head Attendant and Head Night Attendant in the Attendants' Block.

The Nurses' Block.

Nurses' Recreation Room.

Domestics' Block.

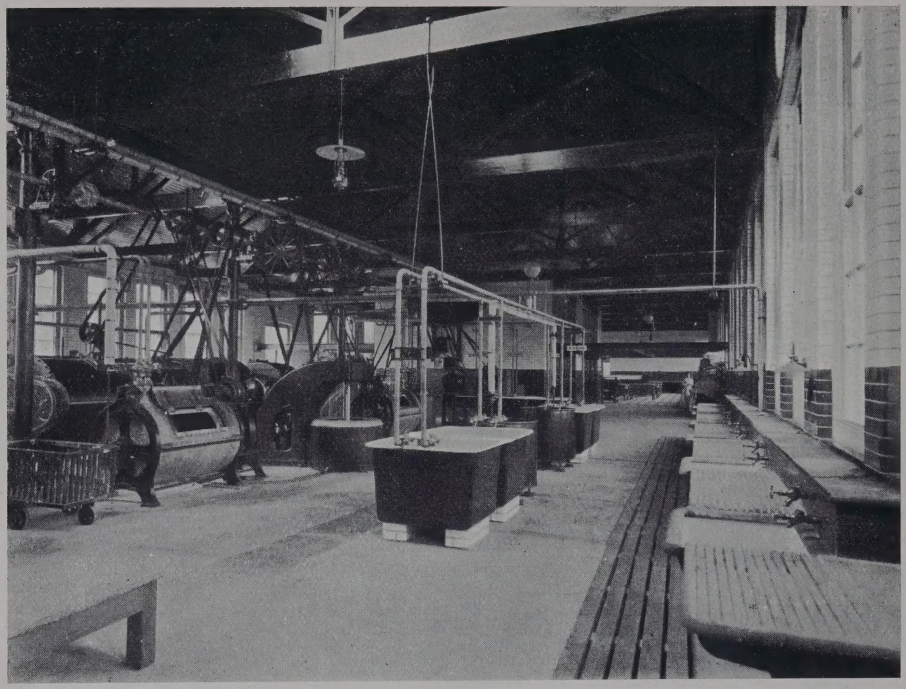
The Domestic Staff Block occupies a central position on the main Cross Corridor. On the upper floors are Dormitories divided into Cubicles, and on the ground floor Mess and Sitting Rooms, together with Rooms for the Chief Domestics. Bathrooms and Sanitary Rooms are provided on each floor, and Lavatory, Linen Rooms, Box Rooms, and Cleaning Rooms are provided.

Staff Blocks Generally.

Each Block has a Staircase at each end, the floors are of concrete and steel construction, and are finished either with Terrazzo or oak or fir laid direct on the concrete. The Bedrooms have open fireplaces, and the Corridors. Cubicles, Bathrooms, Lavatory, Sanitary Rooms, &c., are warmed by steam radiators. The Bedroom windows are fitted with specially designed ventilating heads with balanced flaps for admission of fresh air above the blinds, and they have also outlet ventilators into the flues.

Covered Way.

Domestic Block.



Laundry.

The arrangement of the Laundry is a new departure initiated by the Managers. It has been customary hitherto to divide the Asylum Laundries into four separate departments, each practically a complete Laundry for Male and Female Patients, and Male and Female Staff respectively. This of course involved expense in building and rendered supervision difficult. Acting upon the Managers' instructions we have much simplified this building, and it now has but one Wash-house and one Ironing Room for the whole of the work. There are separate Receiving Rooms and Packing Rooms for Staff and Patients, a Steeping Room for foul linen, and four Drying Closets.

The Laundry has been fitted up with the most modern and approved machinery and fittings under the supervision of Mr. W. T. Hatch, M.I.M.E., Engineer to the Board. It is electric driven, and the Drying Rooms are fitted with horses, the drying being effected by hot air on the Plenum System. The Contractors for this work were Messrs. Entwisle & Gass, of Bolton.

Mortuary.

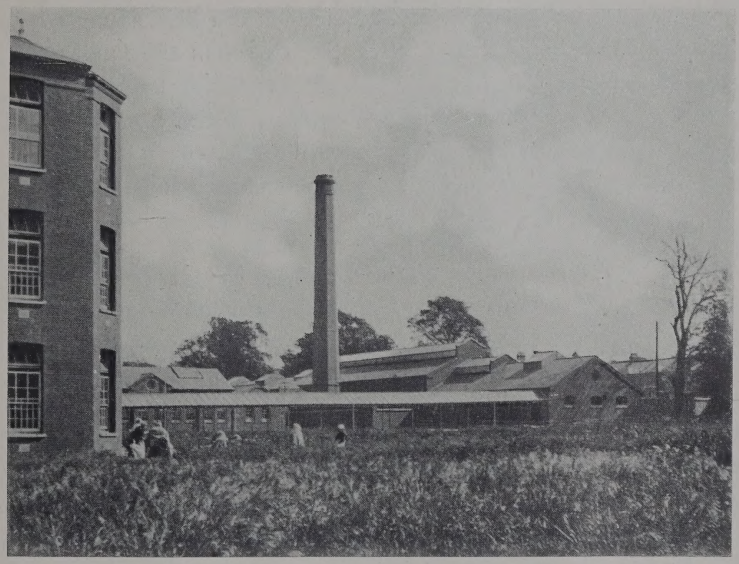
The Mortuary is near the back entrance and consists of a Dead House, fitted with a Cabinet, a Friends' Room, Post Mortem Room, and Pathological Room.

Disinfector.

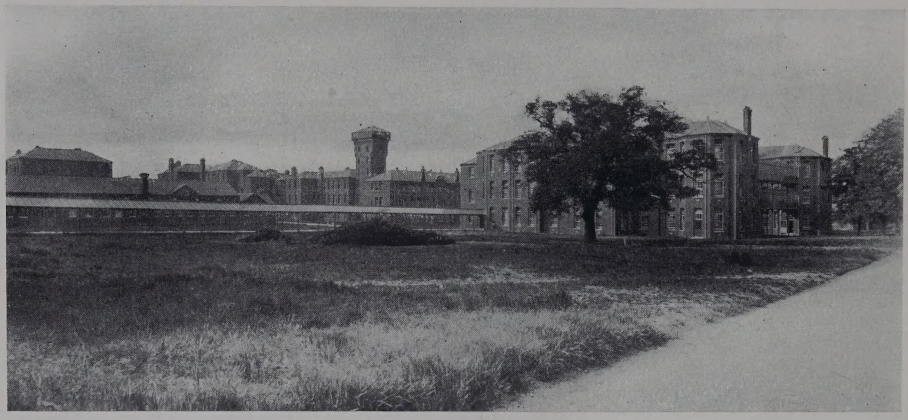
A Disinfector Room is being built at the West end of the Boiler House Block, and will be fitted with a Lyon's Steam Disinfector, with vacuum apparatus.

Engineer's Department.

At the rear of the Laundry is the Boiler House with Steam Coal Store, Gas House, Dynamo House, and Cell Room, and in continuation of the same Block two large Stores for house coal in immediate connection with the side covered ways. All these buildings open into an enclosed Workshop yard, where also will be found Workshops for Smith, Engineer, Plumber, Carpenter, Painter, Upholsterer, and Mattress Maker, together with a Store and Office for the Foreman of Works, and Lavatory and W.C.'s for the Workmen.



Engineer's Department.



General View from East.

Materials.

The buildings generally are built of stock bricks faced with Lawrence's red bricks with blue Staffordshire plinths, and they are covered with Bangor slates. The boundary walls are built with pressed Leicester red bricks and blue Staffordshire plinths and capping. Next Tooting Bec Common the land is enclosed by a wrought-iron fence 8 feet 6 inches high, supported by cast standards. The corridors have concrete flat roofs covered with asphalt, the covered ways have glass roofs, on Rendle's system, carried upon iron columns, and the floors which cover the pipe ducts are of concrete asphalted.

Water Supply.

The Water Supply is from the mains of the Lambeth Water Works Company. For Fire purposes a 6-inch main is run to and through the main ducts, forming a ring with 6-inch and 4-inch branches. There are 25 external hydrants and 55 internal fire valves, all fitted with outlets to suit the London Brigade fittings.

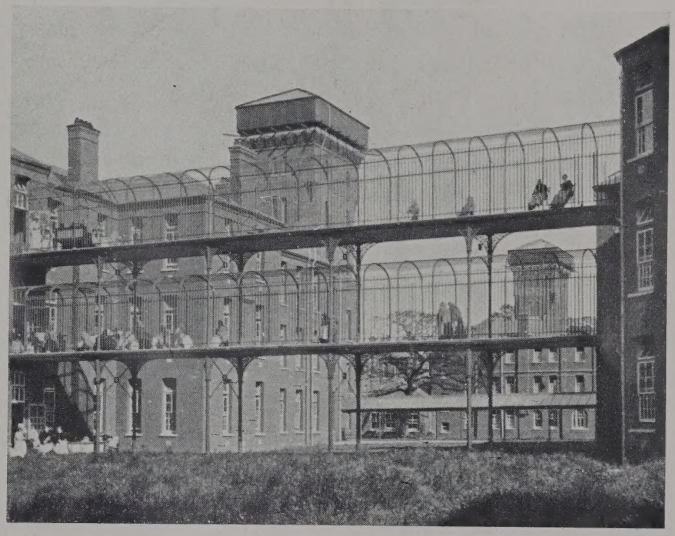
For the domestic supply, two cast-iron tanks, each upwards of 25,000 gallons capacity, have been erected over the staircases of the two central Blocks at a height of 80 feet. These tanks are connected with the fire main so that in case of a temporary stoppage of the Company's supply the water in the tanks will be available, and the pipes are so arranged that one tank may serve the whole building while the other is being cleaned.

Rain Water.

The rain-water is collected in an Underground Reservoir of 120,000 gallons capacity, situated in front of the main building, this being the lowest part of the site. The Reservoir has a wash-out pipe and an overflow to the drainage system, and the water is pumped by an electric pump to the Laundry tank for use in the Laundry and as feed water for the Boilers, the pump being controlled by a switch in the Boiler House.

Steam Boilers and Mains.

There are three Steam Boilers of the Galloway type, each 20 feet long by 6 feet 6 inches diameter, with Green's Economiser and Mechanical Stoker by the Underfeed Stoker Company, the forced draught for which is furnished by a Sturtevant Blower driven by an Electric Motor. These Boilers form the heat centre for the whole building, supplying steam for warming purposes, for heating water, for Laundry and Kitchen, and steam supply mains are carried through the several ducts and the water of condensation is brought back to the hot well next Boiler House and re-used as feed water.



Connecting Bridge.

Hot Water Warming.

The hot-water pipes and radiators in the several Blocks are worked by Royle's Calorifiers with automatic control attachments which regulate the supply of steam to the quantity necessary to maintain a suitable temperature.

Hot Water Supply.

The hot water for Baths, Lavatories, Sinks, &c., is heated by means of a similar Calorifier in the basement of each building with circulating pipes to the several fittings.

Electric Lighting.

The Lighting installation consists of about 2,300 glow lamps of 8 or 16 candle-power, and 12 arcs for lighting the Laundry, and has been carried out on a novel principle devised by the Consulting Engineers. This system which may be called the draw-through concentric system, consists in running on the surface of the walls, buried in the plaster, small brass pipes varying from $\frac{5}{16}$-inch to $\frac{7}{16}$-inch internal diameter, and drawing into them a single (or in the case of a three-wire circuit, two) insulated conductors, the pipe serving at the same time as a channel for, and a protection to, the cable, and as the return conductor for the current, one pole being thus connected to, and at the same pressure as the earth, it is impossible to accidently obtain a shock, and only half the usual amount of wire is required.

The lamps are supplied at 120 volts on the three-wire system, and there being a complete ring main, there are four circuits available for the current, rendering it practically impossible for any breakdown of the main cable to put out more than half the lights at once.

Each separate Block has its own service box and main switch by which it can be disconnected at any time from the ring mains, and all the fuses are grouped in distribution fuse boards in the passages, there being not more than ten lights on a circuit.

The Electric Generating Plant marks a new departure in Asylum practice, inasmuch as the motive power employed is power gas instead of the more usual steam.

The Engine Room contains three gas engines, each giving a maximum of 70 B.H.P. at about 210 revolutions per minute, and driving by belt a shunt-wound dynamo, giving 140 amperes, 250 volts at 550 revolutions.

As a general rule two engines only are in use, one being a stand-by.

Birdseye View of Building Progress.

The Producer Gas Plant was supplied by Messrs. Paisley Welch, and consists of two of their gas producers with the necessary scrubbers.

During the trials made by the Engineers on completion of the plant, the consumption of anthracite coal per electric unit, measured at the terminals of the dynamo, amounted to only 1·4 lbs., whereas with steam plant this would have been at least 4 to 5 lbs.

In addition to the three dynamos there is a battery of accumulators, consisting of 132 L.B. 9-Tudor cells, capable of discharging at 56 amperes for 10 hours at 240 volts, or in other words of supplying 1,000 16 candle-power lamps for 10 hours.

The Boilers and the Electric Generating Plant and Wiring were carried out by the undermentioned Contractors from designs prepared by Messrs. Handcock & Dykes, and under their supervision:—

Boilers	Messrs. H. & T. Danks.
Generating Plant	Messrs. Crompton & Co.
Wiring and Main Cables ...	Messrs. R. Dawson & Co.

Gas.

Gas is supplied by the Mitcham and Wimbledon District Gas Light Company for cooking purposes, and for the plate warmers and hot plates in the Ward Kitchens.

Drainage.

The soil and surface water drainage discharge into the sewers of the Wandsworth Borough Council. The branch drains are disconnected from the main drains, and these in their turn disconnected from the sewer.

Fire Alarm Bells and Telephones.

An Electric Fire Alarm System has been installed with 36 call boxes, 10 alarm bells, and 2 indicator boards. There is also telephonic communication between the various departments through an "Exchange" at the Porter's Office. This work was done by Messrs. Julius Sax & Co., Ltd.

Contractors.

Messrs. W. Johnson & Co., Ltd., carried out the main contract, which included Steam Mains, Hot Water Engineering, Tanks, &c., together with road making and ground work. Their contract amount was £204,523, but owing to saving effected on the Laundry building and in other matters, the work was finished for about £2,000 less.

Clerk of Works.

Mr. J. T. Rees acted as Clerk of Works.

Staff.

The administration of the building is under the control of Mr. Edwyn H. Beresford, M.R.C.S., L.R.C.P., Medical Superintendent, whose assistants are Mr. J. Leslie Gordon, M.B.C.M., and Mr. W. M. Ogilvie, M.B.C.M. Miss Cottrill is Matron; Mr. W. J. Gibbs, Steward; and the Rev. F. M. Jackson, Chaplain.

Male Attendants' Block.

The Steward's House.

Receiving Home for Children, and Stabling.

These Buildings are in course of construction, Messrs. Cropley Brothers, Limited, of Epsom, having undertaken the contract at £12,599.

The Receiving Home affords accommodation for:—

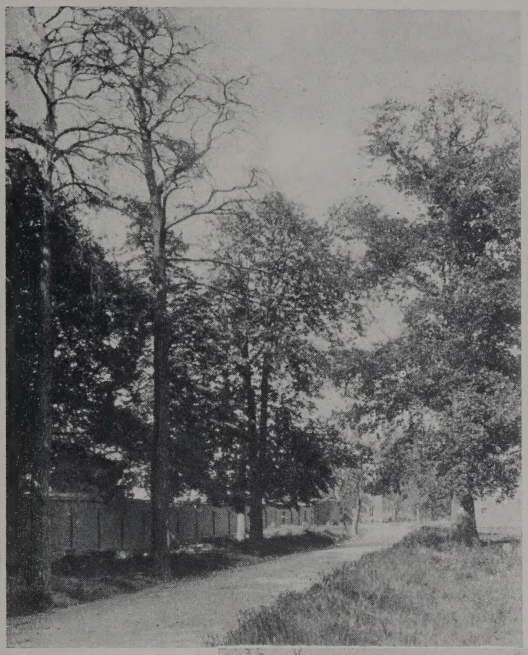
IMBECILES—			
Males	20		
Females	16		
			36
RINGWORM—			
Males	4		
Females	4		
			8
OPHTHALMIA—			
Males	4		
Females	4		
			8
ISOLATION			4
Total Patients			56
Total Staff			13

Stabling.

The Stabling forms a miniature Ambulance Station, and provides accommodation for two men, four horses, and eight vehicles, including one steam motor ambulance.

A. & C. HARSTON,
Architects.

15, Leadenhall Street.
June, 1903.



The Drive.

View of
Tooting Bec Common
from the Gate.

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